IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEx PTB 21.0007X**

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Certificate history:
Issue 3 (2023-05-15)
Issue 2 (2021-11-19)
Issue 1 (2021-04-21)
Issue 0 (2021-03-30)

Status: **Current**

Issue No: 4

Date of Issue: 2025-08-18

Applicant: **Chemelex Belgium NV**
Research Park
Haasrode - Zone 2
Romeinse straat 14
Leuven B-3001
Belgium

Equipment: **Raychem HTV Range of Self-Regulating Trace Heating Systems**

Optional accessory:

Type of Protection: **Trace Heating System with Ex Components in Type of Protection Increased safety 'eb', Encapsulation 'mb' and Protection by enclosure 'tb'**

Marking: Ex eb mb 60079-30-1 IIC T6…T2 Gb

Ex tb 60079-30-1 IIIC T85°C…T215°C Db

Approved for issue on behalf of the IECEx Certification Body: **Dr.-Ing. Stefan Essmann**

Position: **Head of Department "Explosion Protection in Energy Technology"**

Signature:
(for printed version)

Date:
(for printed version)

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Certificate issued by:

Physikalisch-Technische Bundesanstalt (PTB)
Bundesallee 100
38116 Braunschweig
Germany

Physikalisch-Technische Bundesanstalt
Braunschweig und Berlin

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Manufacturer:
Chemelex Belgium NV
Research Park
Haasrode - Zone 2
Romeinse straat 14
Leuven B-3001
Belgium

Manufacturing locations:

Chemelex Belgium NV
Research Park
Haasrode - Zone 2
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Belgium

Chemelex LLC
899 Broadway St.
Redwood City CA 94063
United States of America

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements.This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS :
The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2017 Edition:7.0	Explosive atmospheres - Part 0: Equipment - General requirements
IEC 60079-18:2017 Edition:4.1	Explosive atmospheres - Part 18: Protection by encapsulation "m"
IEC 60079-31:2013 Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
IEC 60079-7:2017 Edition:5.1	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
IEC/IEEE 60079-30-1:2015 Edition:1.0	Explosive atmospheres - Part 30-1: Electrical resistance trace heating - General and testing requirements

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:
A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Report:

DE/PTB/ExTR21.0017/03

Quality Assessment Reports:

GB/BAS/QAR06.0030/11 GB/BAS/QAR07.0053/11

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EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

The Raychem HTV Range of Self-Regulating Trace Heating Systems consists of the aHTVb-CT self-regulating heating cable, associated junction and connection kits and special cable glands. The application covers industrial freeze protection up to temperature maintenance processes with a high maximum exposure temperature. The maximum withstand temperature of the heating cable is up to +260°C (max. continuous operating temperature is +205°C).
Any of the products in the range may be considered as part of a stabilized or controlled system design. In such systems the design is based upon of nVent proprietary software such as TraceCalc, TRACERLYNX and software based on the same data and algorithms. These designs may carry temperature classes other than those described and are marked with the actual maximum temperature and the appropriate T class in parenthesis.

Nomenclature

aHTVb-CT
a: output, W/ft@10°C: 3, 5, 8, 10, 12, 15, 20, 28
b: Voltage: 1 (120 Vac: 90~130 Vac) or 2 (240 Vac: 190~277 Vac)

Technical details see Annex.

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. Raychem HTV ´Range of Heating Cables must be installed using nVent Thermal LLC's JBM-100-E, JBM-100-A, JBM-100-EP, JBM-100-L-E, JBM-100-L-A, JBM-100-L-EP, JBS-100-E, JBS-100-A JBS-100-EP, JBS-100-L-E, JBS-100-L-A, JBS-100-L-EP, JBU-100-E, JBU-100-A, JBU-100-EP, JBU-100-L-E, JBU-100-L-A, JBU-100-L-EP, T-100, E-100-E, E-100-A, E-100-L-E, E-100-L-A, C25-100, C25- 21, C25-100-METAL, C25-100-METAL-NP, C25-100-METAL-SS, C3/4-100-METAL, C3/4-100-METAL-NP, C3/4-100-METAL-SS, C75-100-A, Connection Kits and S-40 and E-40 Integral Components.
2. Refer to the installation instructions to reduce the potential of an electrostatic charging hazard on the enclosures of the connection kits.
3. Any unconnected heating cable end must be sealed with a nVent approved end seal.
4. The end-user shall mount the equipment per nVent Thermal LLC's instructions at all times.
5. The supply to the heating unit must be terminated in a suitably certified terminal enclosure.

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
Name change to Chemelex Belgium NV

Annex:

COCA_PTB_210007X_I4.pdf

Physikalisch-Technische Bundesanstalt
Braunschweig und Berlin

Applicant: Chemelex Belgium NV
Romeinse Straat 14
3001 Leuven
Belgium

Electrical Apparatus: Raychem HTV Range of Self-Regulating Trace Heating Systems
Type aHTVb-CT

Technical data

max. Ambient temperature range*	-60°C to +56°C	with S-40 and E-40
	-55°C to +56°C	with JBx-100-xx and T-100 and E-100-E
	-55°C to +56°C	with C25-100, C25-21, C25-100-Metal, C25-100-Metal-NP, C25-100-Metal-SS, C3/4-100-Metal, C3/4-100-Metal-NP, C3/4-100-Metal-SS, C75-100-A
	-40°C to +40°C	with E-100-L-E and JBx-100-L-xx
max. operating temperature	+205°C	
max. withstand temperature	+260°C (Power 'on' / 'off')	
min. start up temperature	-60°C	
min. installation temperature*	-60°C	
min. bending radius	12.7 mm at -60°C	
max. rated voltage	130 Vac / 277 Vac	
max. rated circuit current	40 A	

* The temperature range for the installed assembly results from the temperature rating with the most restrictive temperature range.

The following temperature classes are assigned by the product classification approach:

Trace Heater	**T class**	**Trace Heater**	**T class**
3HTV1-CT	180 °C (T3)	3HTV2-CT	180 °C (T3)
5HTV1-CT	T3	5HTV2-CT	T3
8HTV1-CT	T3	8HTV2-CT	T3
10HTV1-CT	T3	10HTV2-CT	T3
12HTV1-CT	T3	12HTV2-CT	T3
15HTV1-CT	T3	15HTV2-CT	T3
20HTV1-CT	215 °C (T2)	20HTV2-CT	215 °C (T2)
		28HTV2-CT	240 °C (T2)

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